## REMARKS/ARGUMENTS

Claims 1 and 6-16 are pending in this application. Claims 1, 6 and 7 stand rejected. Claims 8-16 are withdrawn from consideration as being drawn to non-elected inventions.

In response to the claim rejections, claims 1, 6 and 7 have been amended. The claim amendments are supported by the application as filed and thus they raise no question of new matter. Entry of these amendments is respectfully solicited, following which reconsideration of the application is requested.

### Claim Rejections Under 35 U.S.C. 101

Claims 1, 6 and 7 are rejected pursuant to 35 USC 101 for the reasons presented at p. 2 of the Office Action. In response, the subject claims have been amended to recite, "an isolated cell" as suggested by the Examiner. These amendments are believed to overcome the ground for rejection. The Examiner is, therefore, respectfully requested to reconsider and withdraw the rejections under §101.

### Claim Rejections Under 35 U.S.C. 112

Claims 1, 6 and 7 are additionally rejected under 35 U.S.C. 112, first paragraph, for allegedly failing to meet the 'enabling' requirement of the statute. The Office Action states that while the specification is enabling for a method of expressing a protein comprising a non-naturally occurring amino acid, wherein the method comprises expressing the protein in an isolated animal cell, it does not reasonably provide enablement for a method of expressing a protein comprising a non-naturally occurring amino acid in an animal cell wherein the cell can be in any animal including humans.

In response, the Examiner's attention is respectfully directed to the discussion above concerning the rejection based on 35 U.S.C. §101 wherein it is noted that claims 1, 6 and 7 have now been amended to recite that the claimed expression takes place in "isolated animal cells". The indicated amendment is, thus, believed to also overcome the claim rejections based on 35 U.S.C. §112 and, as such, the Examiner is respectfully requested to also reconsider and withdraw the §112 rejection.

**Claim Rejections Under 35 U.S.C. 103**

In the Office Action previous to the present one, claims 1-7 were rejected under 35 U.S.C. §103 over the Kiga et al. reference ("Kiga"). In the present Office Action, notwithstanding the remarks provided by applicants in their Amendment dated August 14, 2007 (which are expressly incorporated herein by reference) the Examiner continues to maintain the subject rejection with regard to the remaining claims 1, 6 and 7 presently under examination. The rejection is respectfully traversed for the reasons below.

The Office Action states on p. 8 that, " . . . [f]or expression purposes one of ordinary skill in the art can be motivated to use any amber tRNA derived from a microorganism such as a *Bacillus* species . . . ". Applicants, however, respectfully disagree with the above statement by the Examiner, contending that he has failed to adequately consider certain points militating against just such a conclusion, as indicated in the following discussion.

To begin with, the tRNA and aminoacyl tRNA synthetase have coevolved and, therefore, each said molecule has a shape and characteristics which are influential to the other. For example, the tyrosine tRNA molecules from *E. coli* and *B. stearothermophilus* are as different from each other as are the tyrosyl-tRNA synthetases from these organisms.

Further to the above, compatibility of a tRNA from one species with the corresponding tRNA from a different species cannot be predicted, i.e., it must be experimentally tested. In other words, such compatibility cannot be understood *a priori*.

Thus, in light of the facts set forth above, one having an ordinary level of skill in this art would be naturally motivated to use a combination of tRNA and tRNA synthetase from the same species if they wished to efficiently express a protein.

The Kiga reference cited to reject the claims only discloses that a combination of tRNA synthetase and tRNA from *E. coli* might be used in an animal cell. The reference neither teaches nor suggests, however, to use a combination of tRNA synthetase and tRNA from different species for use in expressing peptides in isolated animal cells as is presently claimed.

Taking the above remarks into consideration, therefore, applicants respectfully submit that the Kiga reference would not have motivated one having ordinary skill in the art at the time the presently claimed invention was made to combine the tRNA synthetase from *E. coli* with tRNA from *B. stearothermophilus*, that is, from two different species. This factor thus strongly evidences the non-obviousness of the present claims.

Further to the above, on p. 8 of the Office Action the Examiner further states that, "Applicants do not present data that show that the vector comprising an amber suppressor tRNA from *E. coli* was successfully transfected in any eukaryotic cell". The Examiner then mentions Kiga wherein the method described therein occurs in a cell-free system that does not require transfecting vectors into a eukaryotic cell and states that Kiga thus provides evidence that *E. coli* amber suppressor tRNA can function with the V37C195 mutant tRNA synthetase from *E. coli.* In response, however, the Examiner's attention is respectfully directed to Fig. 4A of the present application, which demonstrates that mutant enzyme was successfully expressed in animal cells by transfection. Since a vector comprising a gene for suppressor tRNA from *E. coli* is co-transfected it is, therefore clearly shown that both vectors, i.e.,. one for mutant enzyme and the other for suppressor tRNA, were introduced into the cells.

For the reasons presented above, therefore, applicants respectfully submit that claims 1, 6 and 7 are not obvious over Kiga et al. and the Examiner is, thus, requested to reconsider and withdraw the rejection of those claims under 35 U.S.C. §103.

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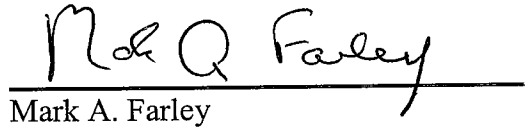
Respectfully submitted,



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